



## PATENT ABSTRACTS OF JAPAN

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## (54) IMAGE EXPOSURE DEVICE

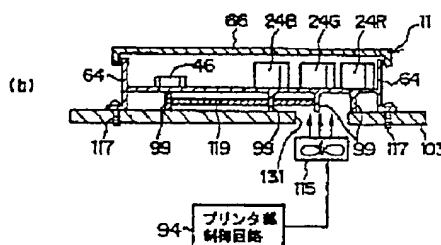
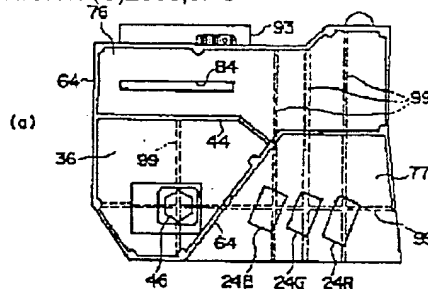
## (57) Abstract:

PROBLEM TO BE SOLVED: To obtain an image exposure device constituted so that heat generated from a heat generation source is efficiently processed, the position of a laser beam is prevented from being fluctuated by reducing thermal stress and exposure performance can be maintained and stabilized when an exposure action is executed on a photographic paper.

SOLUTION: Ribs 99 are formed at the outside of an optical box 11 housing laser light sources 24R, 24G and 24B and a polygon mirror 46 so as to be crossed. Besides, the light sources 24R, 24G and 24B and the mirror 46 are arranged at the crossed part of the ribs 99. Then, when the exposure action is executed on the photographic paper by the laser beam, the heat is generated from the light sources 24R, 24G and 24B and the mirror 46 and transmitted to the ribs 99. By making the crossed ribs 99 function as a fin for radiating heat utilizing the

size of the surface area of the rib, the box 11 can be efficiently cooled.

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2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

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CLAIMS

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[Claim(s)]

[Claim 1] The picture image aligner characterized by preparing the fin for thermal radiation which emits the heat which occurred from the aforementioned light source and the aforementioned deflection means to the outside of the optical box which contains the aforementioned light source and the aforementioned deflection means, and is attached in a mainframe frame in the picture image aligner which has the light source and the deflection means which carries out the scanning deflection of the laser beam generated from the aforementioned light source.

[Claim 2] The aforementioned fin for thermal radiation is a picture image aligner according to claim 1 characterized by crossing, being formed mutually and establishing the aforementioned light source and the aforementioned deflection means on a transposition of the aforementioned fin for thermal radiation.

[Claim 3] The picture image aligner according to claim 2 characterized by connecting the fin for thermal radiation seldom influenced of the heat which occurred from the crossing aforementioned fin for thermal radiation and the crossing aforementioned light source, and the aforementioned deflection means with a heat-transport means to convey heat.

[Claim 4] A picture image aligner given in the claim 1 characterized by establishing a cooling means to make the aforementioned fin for thermal radiation cool, or any 1 term of 3.

[Claim 5] The aforementioned fin for thermal radiation is a picture image aligner given in the claim 1 characterized by being the rib which raises the rigidity of the aforementioned optical box, or any 1 term of 4.

[Claim 6] A picture image aligner given in the claim 1 characterized by really forming the heat sink which absorbs the heat accumulated at the aforementioned optical box, or any 1 term of 5.

[Claim 7] The picture image aligner according to claim 6 characterized by having covering which forms the duct which results in the aforementioned pressurization means from a pressurization means to supply air to the aforementioned interior of an optical box, and the outside of the aforementioned heat sink.

[Claim 8] The picture image aligner according to claim 7 characterized by the air supplied inside the aforementioned optical box from the aforementioned pressurization means hitting the attachment site of the aforementioned heat sink.

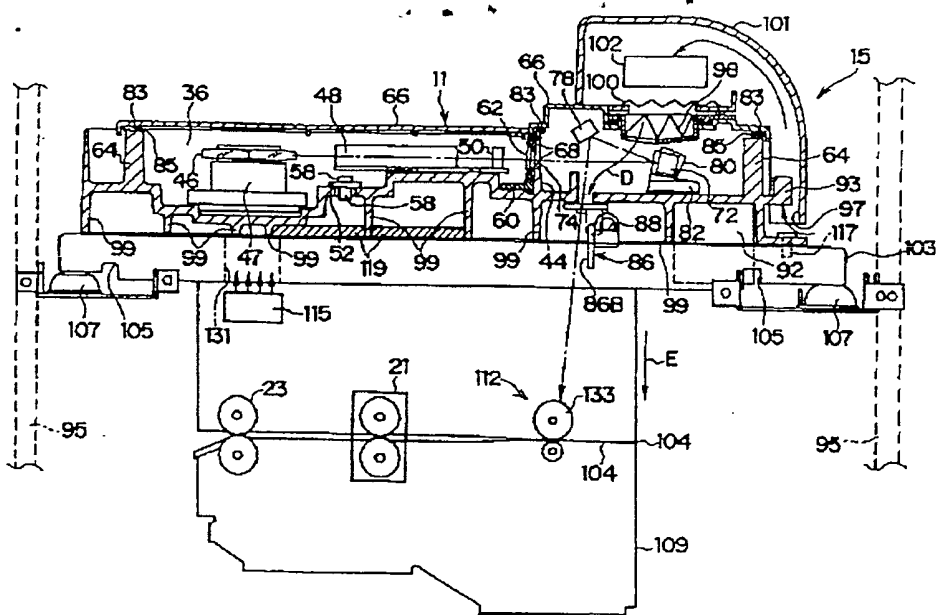
[Claim 9] The aforementioned optical box is a picture image aligner given in the claim 1 characterized by being attached in the aforementioned mainframe frame through the conclusion member formed with the concerned optical box and this quality of the material, or any 1 term of 8.

[Claim 10] The picture image aligner according to claim 9 characterized by forming the slot which absorbs the heat strain produced with heat in the aforementioned conclusion member inside the conclusion section with the aforementioned optical box.

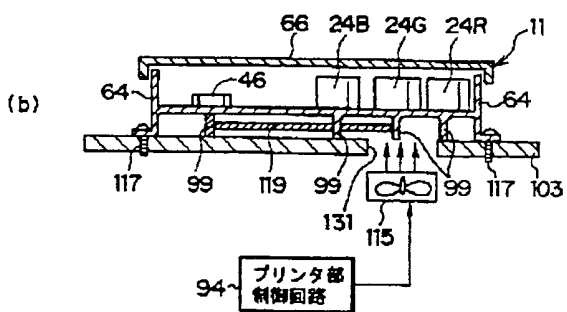
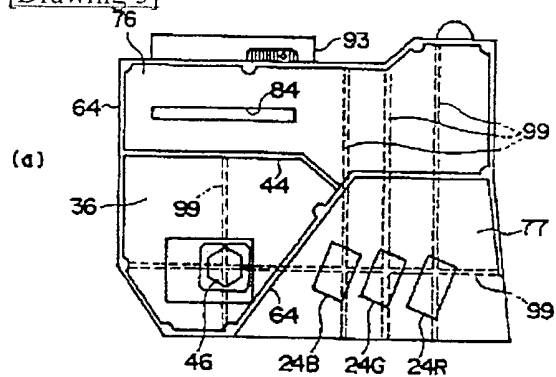
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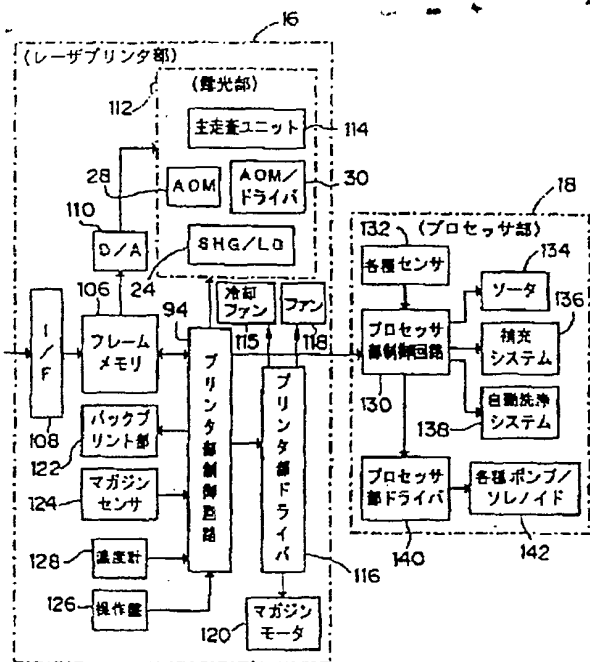




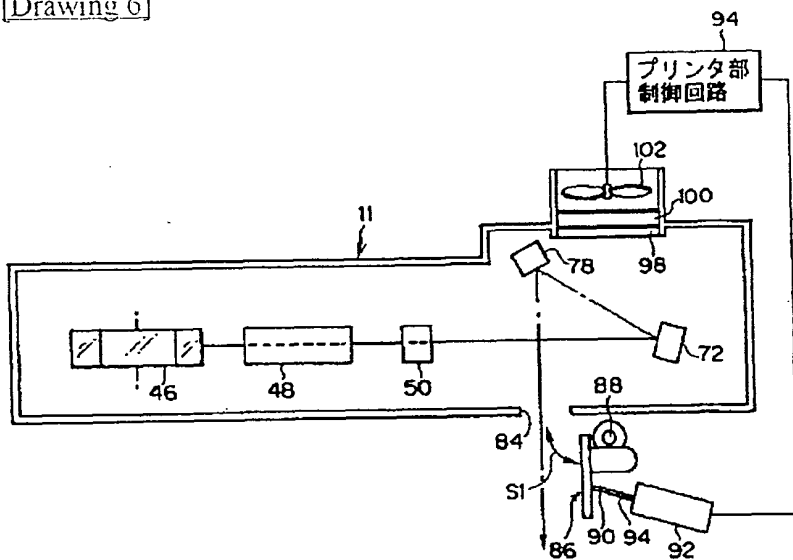
[Drawing 5]



[Drawing 7]



[Drawing 6]



[Translation done.]